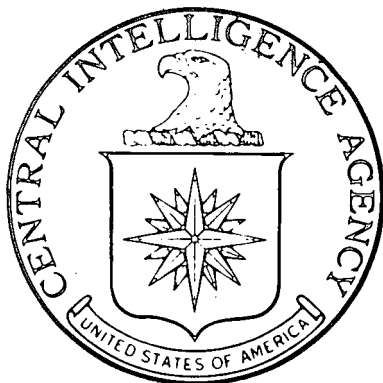


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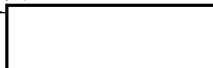
IMAGERY
ANALYSIS
DIVISION

PIR

PHOTOGRAPHIC INTELLIGENCE REPORT

VITAL INTEREST BODY

STUDY OF SELECTED



IMAGERY OF SOVIET "N" CLASS SSN

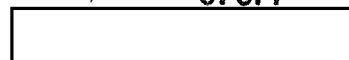
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CIA IMAGERY ANALYSIS DIVISION

CIA/PIR-67077

STUDY OF SELECTED KEYHOLE
IMAGERY OF SOVIET "N" CLASS SSN

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CIA IMAGERY ANALYSIS DIVISION

STUDY OF SELECTED KEYHOLE
IMAGERY OF SOVIET "N" CLASS SSN

SUMMARY

An analysis of selected [] photography has been performed in an attempt to locate two Soviet "N" Class SSN on the same frame which differ in length by approximately 20 feet and to determine if the probable "N" Class SSN observed in a floating dock on [] coverage of Severodvinsk has been cut in two.

This research has failed to provide firm evidence (from the same frame of photography) of two "N" Class SSN differing in length by approximately 20 feet. A detailed analysis of [] photography, utilizing both isodensitometric and stereoscopic techniques, revealed that a probable "N" Class SSN observed in a floating dock at Severodvinsk on [] was possibly cut in two.

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ANALYSIS

I. Lengths of "N" Class SSN at Severodvinsk and Litsa Bay

Re-analysis of selected [] photography of Severodvinsk Shipyard 402, Severodvinsk, USSR (64 35N-039 50E) and Litsa Bay Submarine Base, Litsa Bay, USSR (69 26N-032 24E) has failed to reveal firm evidence of significant differences in the waterline lengths of "N" Class SSN.

Litsa Bay

End-points of 4 "N" Class SSN observed at Litsa Bay on [] could not be determined with sufficient accuracy to provide a basis for a meaningful comparison of their waterline lengths. An attempt to obtain more positive end-point definition through the use of isodensity traces proved inconclusive due to a lack of vessel/water contrast.

Severodvinsk

Two submarines observed on [] alongside the Nuclear Submarine Special Support Facility Quay, Yagry Island, Severodvinsk, were originally thought to have possibly been two "N" Class SSN of significantly differing lengths. Analysis of a subsequent excellent quality [] revealed that an "E-II" Class SSGN and an "N" Class SSN occupied berthing positions identical to those utilized by the two submarines in []. Similarities of position, topside detail, and hull framework indicate that the submarines observed on [] at Yagry Island are identical to the "E" and the "N" Class observed alongside this quay [] later. The waterline lengths of the 2 "N" Class submarines observed berthed alongside quays at Severodvinsk on [] were approximately [] respectively. The visible length of an "N" Class SSN observed in a floating dock at Severodvinsk on [] was approximately [].

II. Analysis of a Probable "N" Class SSN in a Floating Dock, Severodvinsk, USSR, []

Analysis of this submarine reveals the presence of a dark area abaft the after edge of the possible sail. From stereoscopic viewing alone, this dark imagery could not be identified as representing either a possible shadow (although no source of such a shadow was evident), a dark substance on the hull, or a break in the hull. However, analysis of isodensity traces of each of the two [] frames containing this imagery revealed that the structure representing the hull of the submarine (on the trace) appeared to be broken. (See Figures 1-4).

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The dimension derived for this dark imagery along the longitudinal axis of the submarine was approximately [REDACTED]. The distance between the bow of this submarine and its stern was approximately [REDACTED]. The visible waterline length of an "N" Class SSN in the water alongside this dock was approximately [REDACTED]. Based on the tenuous evidence cited above, it is felt that the probable "N" Class SSN in the dock could possibly be cut in two, but this cannot definitely be substantiated by any known method of analysis.

One print and one isodensity trace from each of the two frames containing this imagery is included within this report in order to illustrate all the evidence bearing on this problem.

MENSURATION

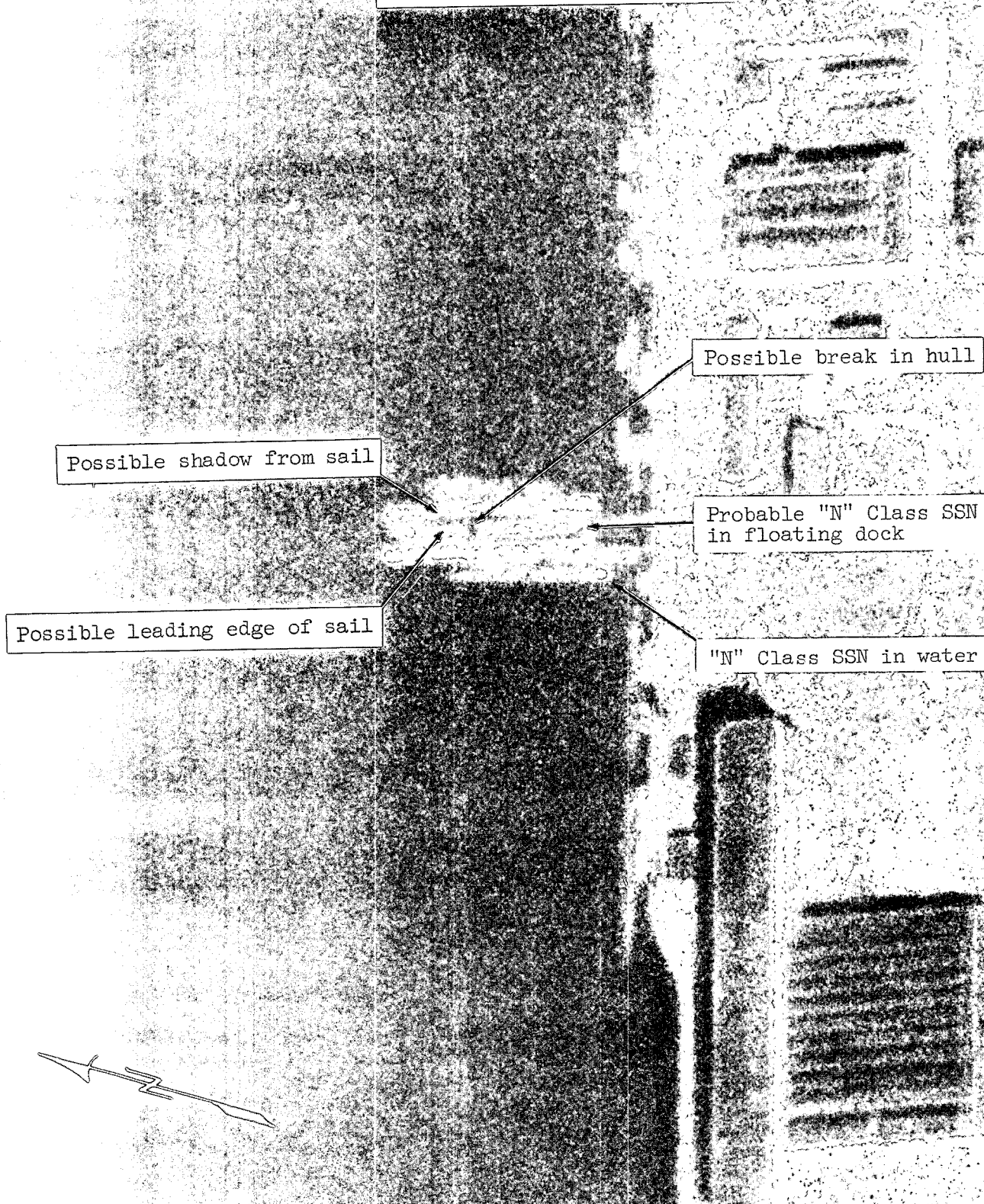
All measurements were performed by the Technical Intelligence Division, NPIC. Those dimensions derived from [REDACTED] photography are considered accurate to within plus or minus five feet or five percent, whichever is greater. The measurements contained in Figure 2 were derived from smaller scale [REDACTED] photography and are considered accurate within plus or minus ten feet or ten percent, whichever is greater.

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FITTING-OUT QUAY, MAIN YARD
SEVERODVINSK SHIPYARD 402
SEVERODVINSK, USSR
64-35N 039-50E



Possible shadow from sail

Possible break in hull

Probable "N" Class SSN
in floating dock

Possible leading edge of sail

"N" Class SSN in water

FIGURE 1

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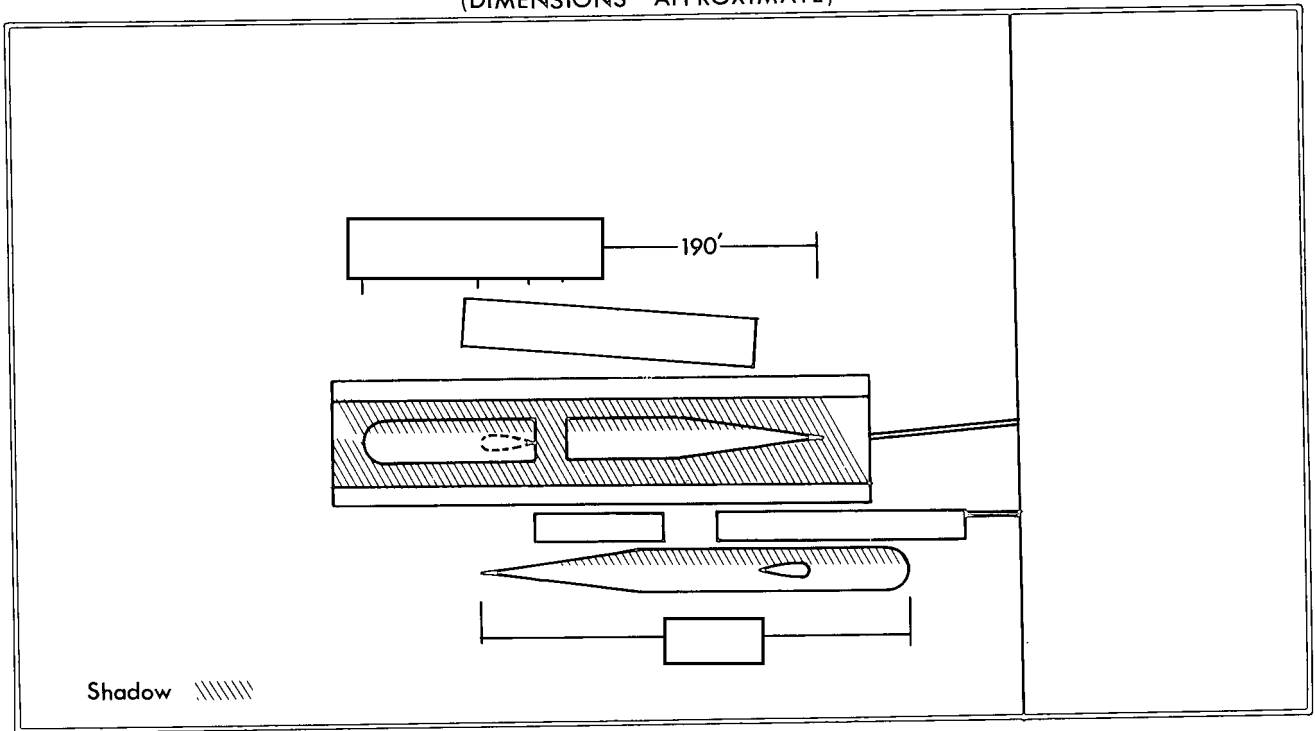
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[Redacted]

PROBABLE "N" CLASS SSN IN FLOATING DOCK
Approved For Release 2003/05/05 : CIA-RDP78T05161A000700010071-4
MAIN FITTING-OUT QUAY, SHIPYARD 402
SEVERODVINSK, USSR

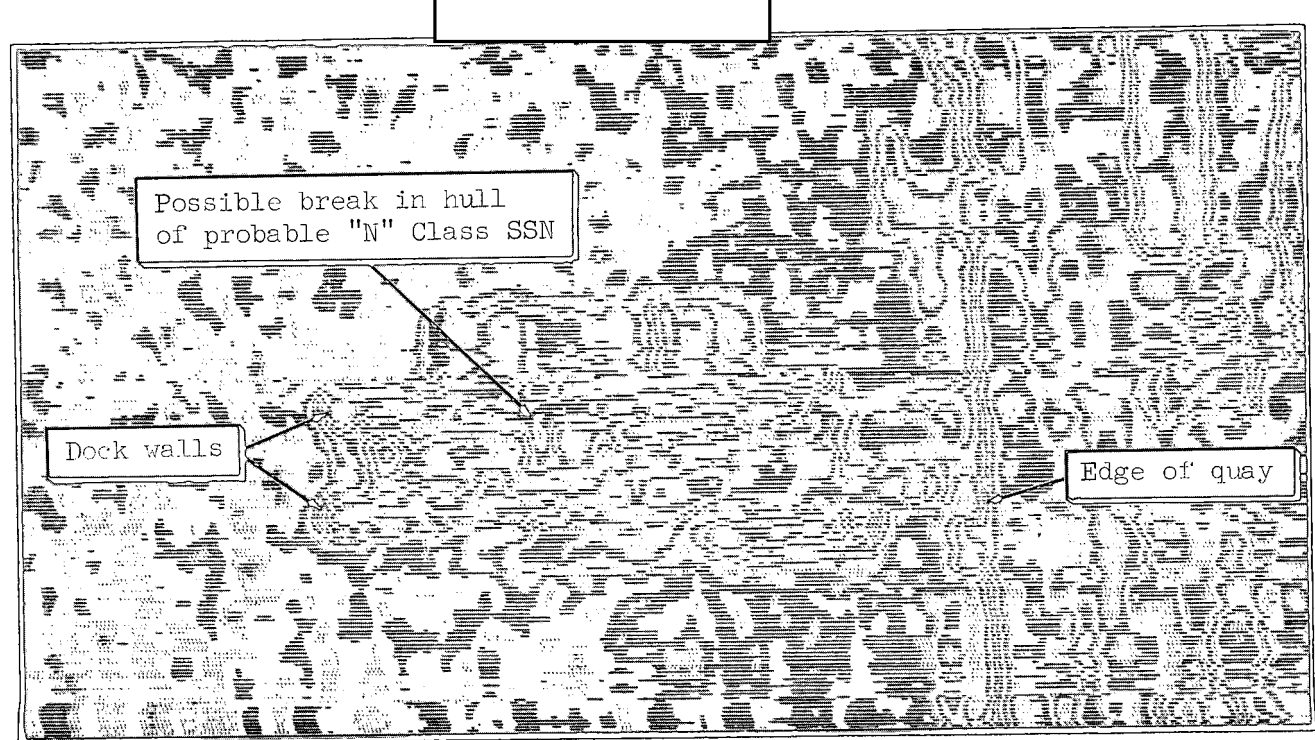
SKETCH
(DIMENSIONS APPROXIMATE)



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200X ISODENSITY TRACE



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FIGURE 2

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FITTING-OUT QUAY, MAIN YARD
SEVERODVINSK SHIPYARD 402
SEVERODVINSK, USSR
64-35N 039-50E

Probable "N" Class SSN
in floating dock

FIGURE 3

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REFERENCES

DOCUMENTS

CIA/PIR-67041, Severodvinsk Naval Base and Shipyard 402, Severodvinsk, USSR, (TOP SECRET

REQUIREMENT

C-SI5-82,858

CIA/IAD PROJECT

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